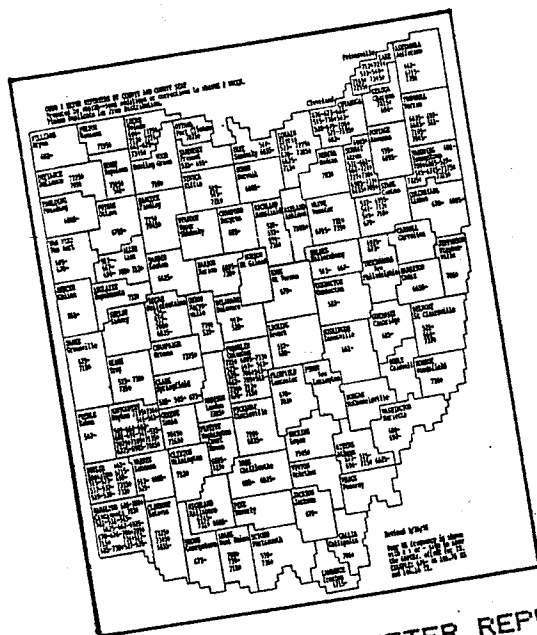


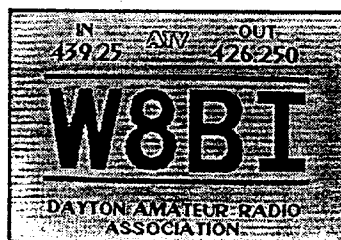
ATCO NEWSLETTER

VOLUME 8 NUMBER 3

JULY 1991



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The ATCO Newsletter is the official publication of a group of television amateurs known as "AMATEUR TELEVISION IN CENTRAL OHIO" and is published in January, April, July, and October.

Membership in ATCO is open to any FCC licensed radio amateur who has an interest in amateur television.

Any publication of material printed in the ATCO Newsletter without the written consent of ATCO is prohibited.

WAS3DTO UPGRADES LICENSE

Our congratulations to Rick who now has his Extra Class ticket.

DARA BALLOON LAUNCH

The Dayton Amateur Radio Association (DARA) was expected to launch an amateur radio high altitude balloon package at the National Weather Service site, Huber Heights, Ohio, on 29 June 1991 at 9:30 a.m. EDT (1330 UTC). The package transmitted on HF, VHF, and UHF frequencies. As far as can be determined, this was the first time a 20 meter beacon was used in this type of package. DARA will award a special certificate to listeners (and watchers) who received the transmission from the farthest distances. QSL cards will be sent to all those confirming reception of any of the three transmitters. A net was established on 7.232 MHz approximately two hours prior to launch of the balloon to give information regarding the status of the flight. Organizers of the flight include ATCO member Dave, AH2AR, W8LLW, KB8EMD, N8NEU, and N8JAF.

The balloon package consisted of the following equipment:

1. A PC Electronics TX RC5 one watt 70 cm transmitter operating on 439.25 MHz; a "Little Wheel" antenna providing a horizontally polarized signal displaying "live video" produced by a Uniden camera; and an interlaced overlay telemetry package from R P Industries showing altitude and temperature.

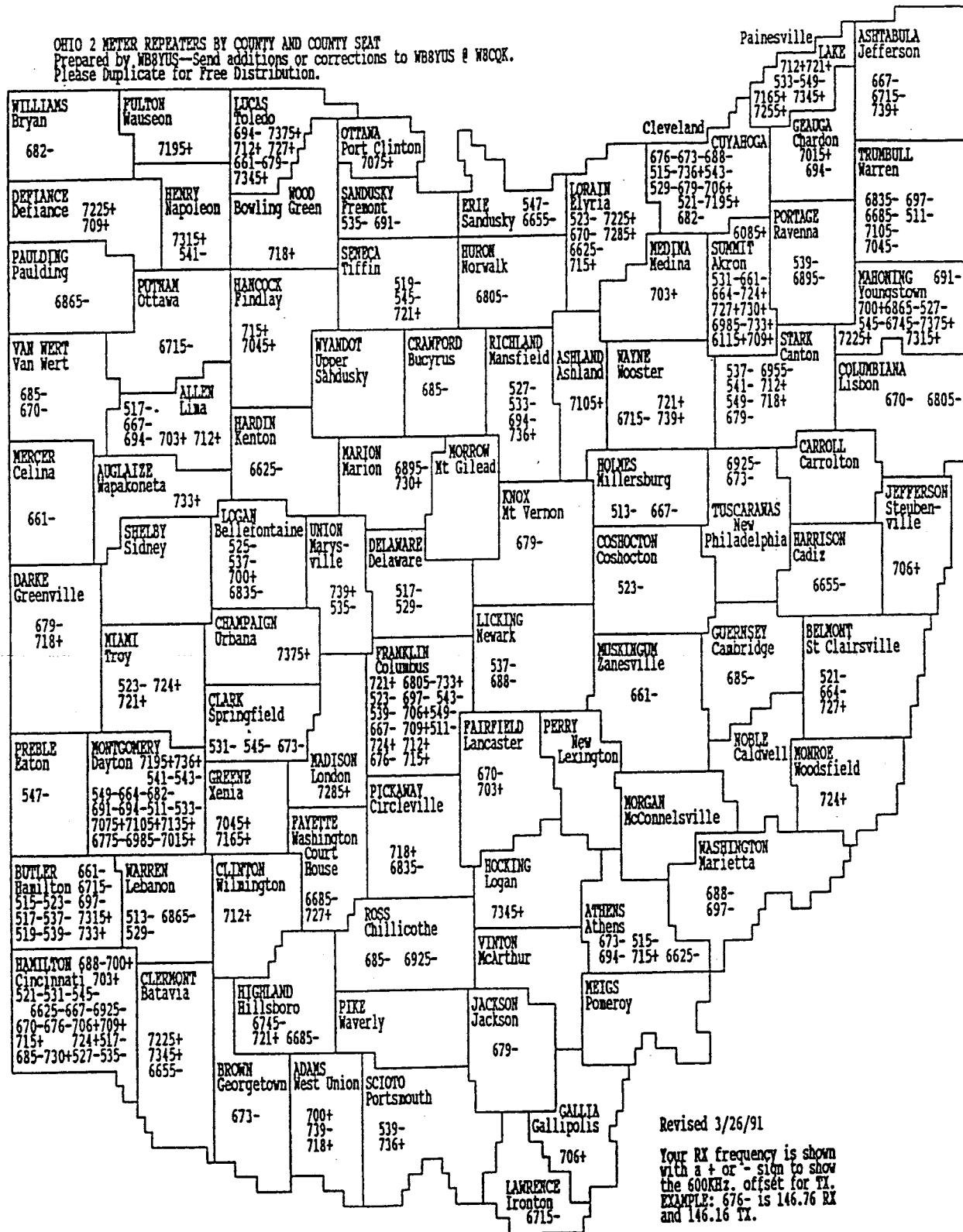
2. The 20 meter beacon signal was created by the Ramsey 20 meter QRP transmitter board interfaced with a GLB automatic CW identifier board. The beacon message included a 13 WPM message sending a series of "V's" along with QSL information. The frequency of operation was 14.035 Mhz, and the 20 meter antenna for this package was a suspended vertical half-wave dipole.

3. The 2 meter digitized voice beacon was injected into a Hamtronics TA-51 2 meter FM exciter running at 100 mW with the final removed. The antenna was a half-wave vertical cut for 144.340 MHz.

Tracking of the balloon was accomplished by a group of balloon RDFers headed by W9DUU. A unique characteristic of the flight was that two hours prior to the launch, a balloon was released by the National Weather Service at Huber Heights to provide tracking data using a software program furnished by W88ELK. This data was expected to help in the planned recovery of the package by W9DUU. Those wishing more information about the balloon launch should contact AH2AR, N8NEU, or KB8EMD via the Dayton BBS, W8BI. (Submitted by Dave, AH2AR.)

OHIO 2 METER REPEATER MAP

OHIO 2 METER REPEATERS BY COUNTY AND COUNTY SEAT
 Prepared by WB8YUS—Send additions or corrections to WB8YUS @ W8CQK.
 Please Duplicate for Free Distribution.



ATCO QUIZ

By Bob, WBTW

1. The term "hertz" stands for - A: cycles per second. B: candles per square foot. C: miles per hour. D: none of the above.
2. In half-wave rectification, the current flows - A: in both directions. B: in one direction. C: toward the watt-hour meter. D: very slowly.
3. The National Bureau of Standards broadcasts time and tones on 5 MHz and 10 MHz. The call sign assigned for this purpose is - A: WLW. B: WWW. C: WWV. D: WVW.
4. Audio equalizers are used to compensate for problems in frequency transfer - A: true. B: false.
5. Radio frequency (RF) energy travels more readily through - A: inductors. B: capacitors.
6. What best describes the orbit of a communications satellite - A: round. B: geostationary. C: polar. D: straight.
7. In the standard color code used for resistors, red indicates - A: 1. B: 4. C: 6. D: 2.
8. The standard number of scanning lines used in United States television is - A: 425. B: 625. C: 525. D: 819.
9. The term "farad" is a measurement unit for - A: resistors. B: capacitors. C: inductors. D: impedances.
10. One amp flowing through one ohm resistance produces a voltage drop of - A: 100. B: 10. C: 1. D: 2.

Answers are on next page.

MORSE CODE IS NOT DEAD!

Effective 1 May 1991 all video satellite uplinks transmitting broadband video are required by the Federal Communications Commission to transmit a three-part identification signal using subcarrier based Automatic Transmitter Identification System (ATIS). The purpose of this regulation is to resolve signal interference and to identify the source of any interfering signal.

Exciter manufacturers are providing subcarrier ATIS module cards as well as a stand-alone ATIS rack-mounted generator. The data characteristic protocol will be International Morse Code transmitted at 25 words per minute. The transmitted information

(continued on page 5)

MORSE CODE IS NOT DEAD!

(continued from page 4)

must contain the uplink FCC callsign (7 characters), telephone number (10 digits), and optional information (10 digits).

Columbus has the honor of having the largest television uplink in the state - it is located on the Ohio State University West Campus. The eleven meter diameter dish is capable of a full 1 Gigawatt ERP at 6 GHz with a .24 degree beam width! If you'd like to inspect this giant, give Bob, W8TV, a call. (Submitted by Bob, W8TV.)

MARYSVILLE HAMFEST INFORMATION

<u>PROGRAMS AND FORUMS.</u>	
8:00 AM-	Programmable Phase-Locked Loops for 1240-1300 MHz.
Presented by:	Bill Parker, W8DMR
10:00 AM-	Antenna and Baluns for VHF and UHF.
Presented by:	Bill Parker, W8DMR
11:30 AM-	ARRL FORUM
12:00 noon-	"Fifty Years Of Amateur Radio" (a look at the past)
Presented by:	John Boyers, W8OM
1:00 PM-	How to get started in ATV (FAST SCAN TV)
Presented by:	Bill Parker, W8DMR
2:00 PM-	Advantages of Frequency Modulation for ATV.
Presented by:	Bill Parker, W8DMR
3:15 PM-	Live ATV Demonstration at the HAMCAM VAN (in the Merchant's Building).
Presented by:	Gene Kirby, W8BJN

An Arts and Crafts show will be presented at the hamfest on Sunday 25 August 1991. The show will be set aside from the regular hamfest area, and there will be no additional charge for those attending. This will give the XYL something to do while the OM shops the hamfest or attends the many forums listed at the left.

This year, FCC License Exams will be offered at all levels. Exams will be on a "walk-in" basis only.

Price of admission is \$3.00. Flea market spaces are \$5.00 for a 10 by 10 foot space, no reservations are needed. For additional information, call Gene, W8BJN, at 513-644-0468 (home) or 614-261-8871 (work).

"HAMCAM" HITS BIG TIME

The Union County Amateur Radio Club's HAMCAM Van was featured in the June 1991 issue of 73 Magazine.

ANSWERS TO "ATCO QUIZ" - 1: A. 2: B. 3: C. 4: A. 5: B. 6: B. 7: D. 8: C. 9: B. 1a: C.

ATCO MEMBERS AS OF 30 JUN 1991

KSAEH	Wilbur Wollerman...	1672	Rosehill Rd.....	Reynoldsburg	43068
WSAER	David Sears.....	1678	Kaiser Dr.....	Reynoldsburg	43068
KSAOH	Charles Tucker.....	1316	Kenwood Ave.....	Springfield	45505
AH2AR	David Pelaez.....	4872	Trailside Court.....	Huber Heights	45424
KB2ARL	Dave DiGiuseppe...	5685-B	Hibernia Dr.....	Columbus	43232
WABATF	Emmett McDonald...	14120	Flintridge Rd. SE...	Glenford	43739
W9AZO	Jim Walter.....	2662	St.Rt. 39 NW RD#3...	Mansfield	44903
KB8BIY	Bob Shaw.....	59	Parkview Ave.....	Westerville	43081
W8BJN	Gene Kirby.....	13613	U.S. 36.....	Marysville	43040
W8BLN	Bob Pfeiffer.....	135	S. Main P.O.Box 224.	North Hampton	45349
KB8BQC	Phil Boerger.....	15044	Scottslawn Rd.....	Marysville	43040
W8CCW	John Ferrell.....	3722	Wagner Court.....	Grove City	43123
WB8CJW	Dale Elshoff.....	8904	Winoak Pl.....	Powell	43065
N8CYV	Blaire Standley.....	721	West North St.....	Springfield	45504
WA3DIO	Rick White.....	5314	Grosbeak Glen.....	Orient	43146
W8EHW	Foster Warren.....	124	East Clark St.....	North Hampton	45349
W8EDY	John Schlaechter...	3199	Lewis Rd.....	Columbus	43207
KB8ESR	Tommy Camm.....	1267	Arkwood Ave.....	Columbus	43227
N8FFO	Edward Hauff.....	2716	Columbus Ave.....	Columbus	43209
KB9FO	Henry Ruh.....	1545	Lee Street Suite 73.	Des Plaines, IL	60018
KB8GZO	Jason Pelaez.....	4872	Trailside Court.....	Huber Heights	45424
KABGZO	Warren Duemmel.....	3488	Darbyshire Dr.....	Hilliard	43026
K8HRR	Ira Bickham.....	260	Tiki Dr.....	Merritt Is., FL	32953
K8HVA	Guy Cunningham, Jr...	31	Birchfield St.....	Plymouth	44865
K8ISM	Steve Iacono.....	1075	Virginia Ave.....	Columbus	43212
K8JGY	Fred Yost.....	330	Dellfield Way.....	Gahanna	43230
N8KCB	Chris Morris.....	3181	Gerbert Rd.....	Columbus	43224
W8KQO	Dale Waymire.....	225	Riffle Ave.....	Greenville	45331
WD8OBT	Tom Camm.....	1267	Arkwood Ave.....	Columbus	43227
WB8OTH	Perry Yantis.....	1850	Lisle Ave.....	Obetz	43207
WM8P	Bob Mills.....	6834	Halligan Ave. East..	Worthington	43085
KE8PN	James Easley.....	1507	Michigan Ave.....	Columbus	43201
W8RMC	Arthur Towslee.....	180	Fairdale Ave.....	Westerville	43081
W8RUT	Ken Morris.....	3181	Gerbert Rd.....	Columbus	43224
W8RVH	Richard Goode.....	9391	Ballentine Rd.....	New Carlisle	45344
W8TTE	Phil Morrison.....	154	Llewellyn Ave.....	Westerville	43081
W8TV	Bob Dye.....	6118	Sedgwick Rd.....	Columbus	43235
WB8UGV	Bruce Jaquish.....	4817	W. Arlington Park...	Fort Wayne, IN	46835
WB8URI	William Heiden.....	4435	Kaufman Rd.....	Plain City	43064
W8VSY	Jack Schmermund.....	401	North Main St.....	West Milton	45383
KABWEX	Philip Hardman.....	940	Oakwood Ave.....	Columbus	43206
KABWGX	Martha Yost.....	330	Dellfield Way.....	Gahanna	43230
KABZPF	Johnny Camm.....	1267	Arkwood Ave.....	Columbus	43227

ATCO FINANCIAL STATEMENT

CASH BALANCE:	
As of 31 March 1991.....	\$587.98
RECEIPTS:	
Dues.....	\$ 0.00
Total receipts.....	\$ 0.00
EXPENDITURES:	
Printing charges for April 1991 ATCO Newsletter.....	\$ 26.65
Postage for April 1991 ATCO Newsletter.....	11.89
Misc. costs incidental to publication of newsletter..	4.58
Total expenditures.....	\$ 43.12
SUMMARY:	
Cash Balance as of 31 March 1991.....	\$587.98
Receipts.....	0.00
Expenditures.....	- 43.12
Balance as of 30 June 1991.....	\$544.86

The above financial report was prepared as of 30 June 1991 by Warren G. Duemmel, KABGZO, ATCO Acting Treasurer.

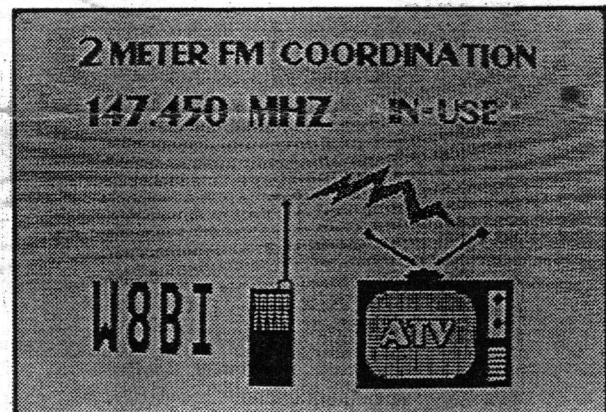
DAYTON ATV REPEATER

(The following information about the Dayton ATV Repeater was submitted by Bill, W8DMR. The photos were taken by Bill at his QTH on 31 May 1991. - Editor.)

To turn on the repeater, a 147.45 MHz signal is keyed "on." When this signal is released, the video I.D. changes to one of the four possible graphics. The repeater remains on for approximately 15 seconds before turning off.

Any audio on 147.45 MHz is repeated and sent with the video I.D. via the normal 4.5 MHz FM sound subcarrier. Also, a CW I.D. is presented periodically over the same subcarrier. Any video signal on 439.25 MHz takes priority over the 147.45 MHz signal, and the video is repeated on 426.250 MHz as shown in the photo.

The Dayton ATV Repeater uses a VDG-1 to generate the color graphics. This unit is sold by Elktronics. Bill used a vertically polarized 88 element J-Beam receiving antenna located at 45 feet using 9913 coax. Camera exposure was one second at f8 using ASA 100 C41 type film. Some of the other video I.D.'s (not shown) are color bar displays with the colors identified along with the call letters.



OUR CONTRIBUTORS

Thanks to the following for their contributions to this issue of the ATCO Newsletter:

Dave, AH2AR; Gene, W8BJN; Bill, W8DMR; Bob, W8TV; Jim, W8BYUS.

THE ATCO ATV NET MEETS AT 9 PM EVERY TUESDAY.

Editor: Warren KAGGZD

Arthur Towhee WABRM 12-91
180 Fairdale Avenue
Westerly, Ohio 43081

FIRST CLASS MAIL

ATCO NEWSLETTER
C/O Warren G. Duemmel
3488 Dabysville Drive
Hilliard, Ohio 43026



The 1991

MARYSVILLE



and

COMPUTER SHOW

SUNDAY

August 25

Marysville Fairgrounds

MARYSVILLE, OHIO

This is an ARRL Approved HAMFEST

Commercial Vendors - Flea Market
Computer Hardware & Software
ARTS AND CRAFT SHOW, TOO.....

FEDERAL LAWS FORBID US TO ADVERTISE DOOR PRIZES.....